| DRAWING NO. | TITLE |
|-------------|-----------------------------------------------|
| SS1 | STANDARD MANHOLE |
| SS2 | SANITARY MANHOLE WITH PRIVATE UNDERDRAIN |
| SS3 | 24" MANHOLE RING AND COVER |
| SS4 | SANITARY SEWER TRENCH DETAIL |
| SS5 | SANITARY SEWER TRENCH WITH PRIVATE UNDERDRAIN |

INDEX OF SANITARY SEWER DETAILS



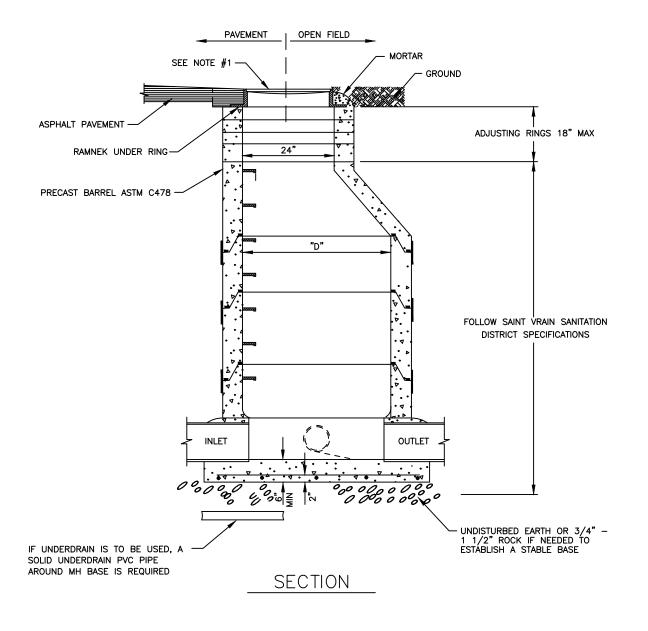
SANITARY SEWER CONSTRUCTION DRAWINGS

BY: JME

SCALE: NTS

DATE: 1/2020

DRAWING:



- 1. FINAL GRADE OF MANHOLE COVERS SHALL BE $\frac{1}{4}$ " LOWER THAN FINAL STREET GRADE.
- 2. MANHOLES NOT IN ASPHALT OR CONCRETE SHALL BE RAISED 6" ABOVE FINAL GRADE AND A CONCRETE COLLAR INSTALLED WITH A GREEN CARSONITE POST.
- 3. BACKFILL TO BE HAND PLACED AND COMPACTED WITHIN FOUR FEET OF THE MANHOLE.

STANDARD MANHOLE



SANITARY SEWER
CONSTRUCTION
DRAWINGS

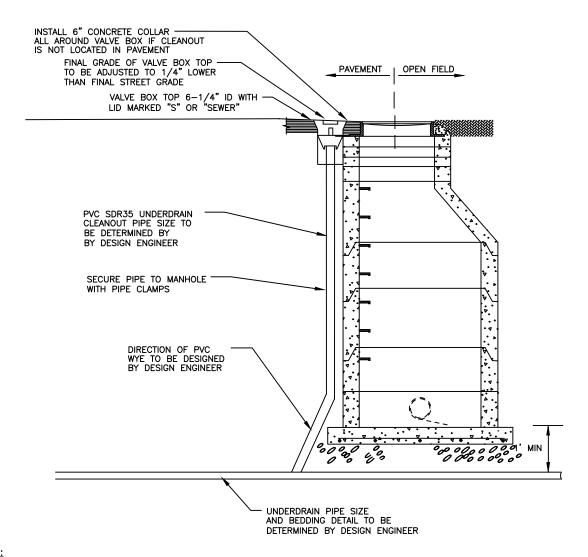
BY: JME

SCALE: NTS

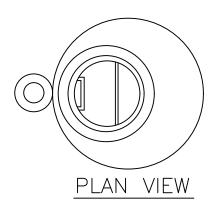
DATE: 1/2020

DRAWING:

SS₁



- FALL UNDERDRAIN SYSTEMS SHALL BE PRIVATE AND NOT MAINTAINED BY THE TOWN OF FIRESTONE.
- PLACE UNDERDRAIN COLLECTOR PIPE AROUND CONCRETE MANHOLE BASE.
- CLEANOUT TO BE PLACED UPSTREAM/DOWNSTREAM OF SANITARY MANHOLE AS DETERMINED BY THE DESIGN ENGINEER.
- 4. SEE 'TRENCH DETAIL WITH PRIVATE UNDERDRAIN' DETAIL FOR VERTICAL LOCATION OF UNDERDRAIN.



SANITARY MANHOLE WITH PRIVATE UNDERDRAIN

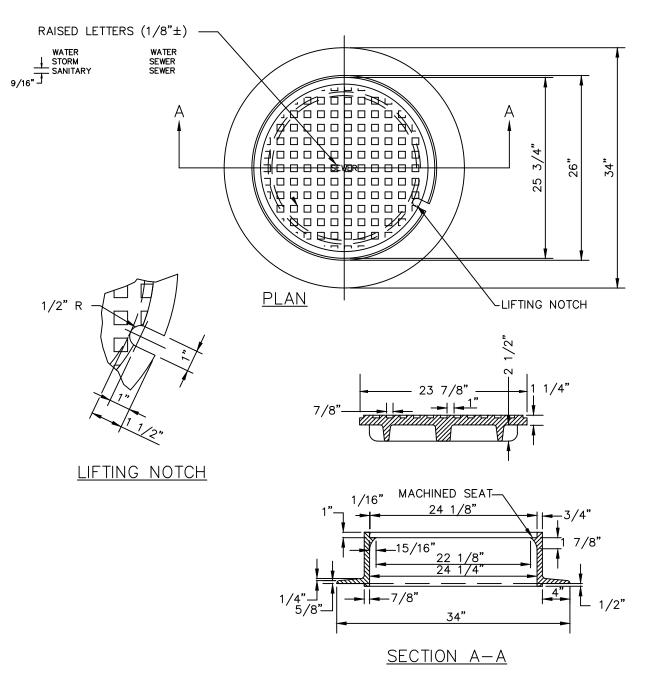


SANITARY SEWER CONSTRUCTION DRAWINGS BY: JME

SCALE: NTS

DATE: 1/2020

DRAWING:



- 1. CASTING SPECIFICATIONS: ASTM A-48 WITH A MINIMUM TENSILE STRENGTH OF 25 KSI (CLASS 25)
- 2. ALL CASTINGS TO BE DIPPED IN ASPHALT BASE PAINT (OR APPROVED EQUAL)
- 3. CASTINGS SHALL BE AS SPECIFIED BELOW OR APPROVED EQUAL:

| MANUFACTURERS | CAT. # |
|--------------------|------------------|
| NEENAH | R-1706 |
| CASTINGS, INC. | MH-400-24 C.I. |
| HUTCHINSON FDRY. & | STL. INC. MH-400 |

4. ALL NEW MANHOLES MUST INCLUDE A PLASTIC OR VINYL TAG ATTACHED TO THE TOP STEP STATING THE FOLLOWING "CAUTION CONFINED SPACE; ENTRY PERMIT REQUIRED.

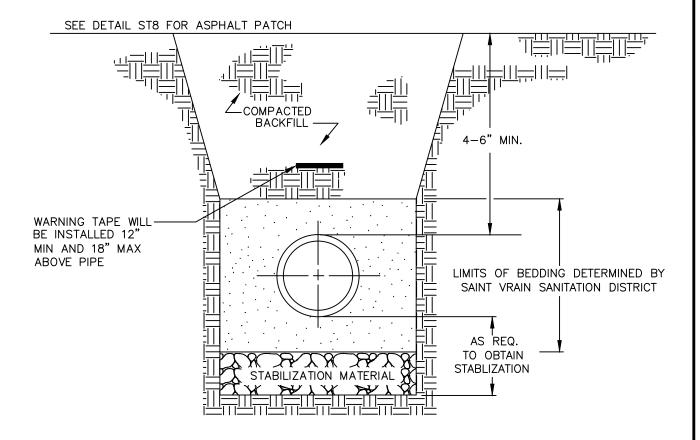
24" MANHOLE RING AND COVER



SANITARY SEWER CONSTRUCTION DRAWINGS

| BY: JME | |
|------------|--------------|
| SCALE: NTS | |
| I | DATE: 1/2020 |

DRAWING:



- 1. COMPACTION SHALL BE AS FOLLOWS: PIPE ZONE BEDDING 6" UNDER AND 12" OVER PIPE WILL REQUIRE 90% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, FULL TRENCH SECTION IN ROADWAY OR STREET R.O.W. LIMITS WILL REQUIRE 95% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, OUTSIDE OF STREET R.O.W. WILL REQUIRE 90% S.P.D.
- 2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
- 3. TRENCH WIDTH SHALL NOT BE MORE THAN 24" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.

SANITARY SEWER TRENCH DETAIL



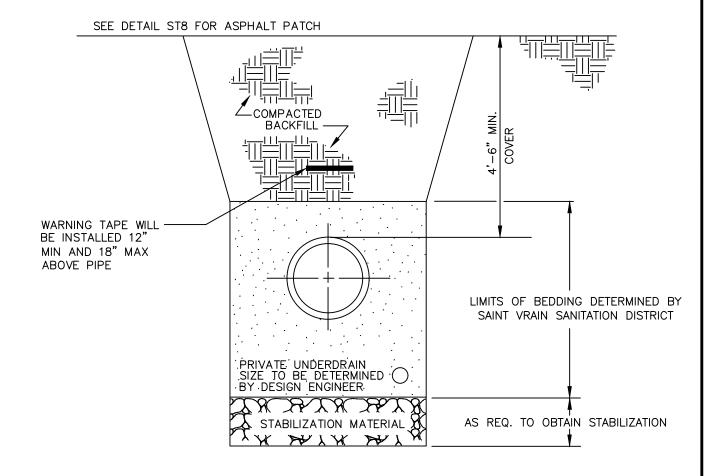
SANITARY SEWER CONSTRUCTION DRAWINGS

BY: JME

SCALE: NTS

DATE: 1/2020

DRAWING:



- 1. BACKFILL TO BE COMPACTED TO 95% ASTM D-698, OR 70% OF ASTM D-4253 AND 4254 RELATIVE DENSITY, IN ALL AREAS UNLESS OTHERWISE NOTED.
- 2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
- 3. TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.
- 4. COMPACTION SHALL BE AS FOLLOWS: PIPE ZONE BEDDING 6" UNDER AND 12" OVER PIPE WILL REQUIRE 90% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, FULL TRENCH SECTION IN ROADWAY OR STREET R.O.W. LIMITS WILL REQUIRE 95% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, OUTSIDE OF STREET R.O.W. WILL REQUIRE 90% S.P.D.
- 5. ALL UNDERDRAIN SYSTEMS SHALL BE PRIVATE AND WILL NOT BE MAINTAINED BY THE TOWN OF FIRESTONE.

SANITARY SEWER TRENCH WITH PRIVATE UNDERDRAIN



SANITARY SEWER
CONSTRUCTION
DRAWINGS

BY: JME

SCALE: NTS

DATE: 1/2020

DRAWING: